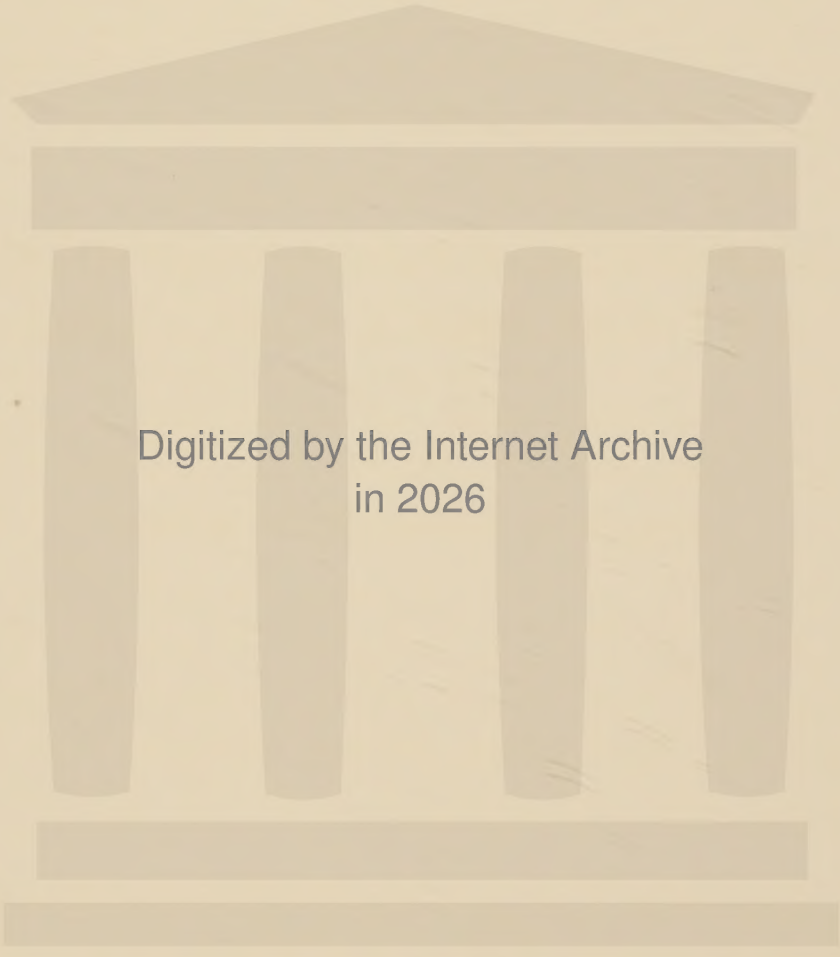
NUMERICAL/CHRONOLOGICAL/ AUTHOR INDEX 1986 - 1992

An Index of Publications of the American Astronautical Society

Horace Jacobs
Robert H. Jacobs

ADVANCES IN THE ASTRONAUTICAL SCIENCES SCIENCE AND TECHNOLOGY SERIES

AN AMERICAN ASTRONAUTICAL SOCIETY PUBLICATION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NUMERICAL/CHRONOLOGICAL/ AUTHOR INDEX 1986 - 1992

An Index of Publications of the
American Astronautical Society

INDEX TO ALL AMERICAN ASTRONAUTICAL SOCIETY PAPERS AND ARTICLES 1954 - 1992

This index is a numerical/chronological index (which also serves as a citation index) and an author index. (A subject index volume will be forthcoming.)

It covers all articles that appear in the following:

Advances in the Astronautical Sciences (1957 - 1992)

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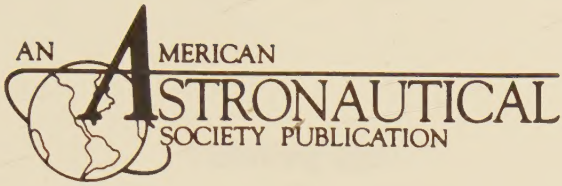

NUMERICAL/CHRONOLOGICAL/ AUTHOR INDEX 1986-1992

An Index of Publications of the American Astronautical Society

Horace Jacobs
Robert H. Jacobs

ADVANCES IN THE ASTRONAUTICAL SCIENCES SCIENCE AND TECHNOLOGY SERIES

and other AAS publications

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FOREWORD

This index volume presents a numerical/chronological index and an author index of all available articles and papers published by, for, or in conjunction with the American Astronautical Society from 1986 through 1992. It is a companion volume to *Numerical/Chronological/Author Index 1954-1978* published in 1979 and *Numerical/Chronological/Author Index 1979-1985/86* published in 1987.

The *Numerical/Chronological Index* (first main section of this volume) consists of an index by AAS paper number in sequential order covering all papers that have appeared in proceedings volumes or their supplements. Included in this index are some International Academy of Astronautics papers, by IAA number or by AAS number assigned for identification purposes. Papers with IAA numbers appear after those which have been assigned AAS paper numbers for a given year. The papers are listed in numerical order under the volume or volumes in which they were published. In each case, the conference at which the papers were presented is identified. Each number is followed by the title of the papers and the author(s). This is essentially a Citation Index in chronological/numerical order.

A chronological index of the contents of *The Journal of the Astronautical Sciences* (1986 to 1992) by volume and issue, with titles, authors, and pages cited is included in the second main section of this volume.

The *Author Index* (third main section of this volume) consists of an alphabetical listing of all authors whose papers were published by the American Astronautical Society from 1986 to 1992, except for those covered in the earlier index volumes and those which have not yet been published. In each case, the author's name and initials only are given. Names are followed by paper number and/or Journal volume and issue number and pages. It is necessary then to refer to the *Numerical/Chronological Index* section of this volume for the complete citation.

The following appendices appear in this volume:

Appendix I	Conferences Sponsored or Co-Sponsored by the American Astronautical Society in Chronological Order by Date (1986-1992)
Appendix II	AAS Annual Meetings in Chronological Order by Date (1954-1992)
Appendix III	AAS Goddard Memorial Symposia in Chronological Order by Date (1961-1992)
Appendix IV	AAS/AIAA Sponsored and Other Conferences on Astrodynamics and Space Flight Mechanics/Dynamics in Chronological Order by Date (1965-1992)
Appendix V	AAS Rocky Mountain Guidance and Control Conferences in Chronological Order by Date (1978-1992)

Appendix VI	Joint Meetings Sponsored or Co-Sponsored by the AAS in Conjunction with the Japanese Rocket Society (JRS) and the Chinese Society of Astronautics (CSA) in Chronological Order by Date (1985-1991)
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Appendix IX	AAS Meetings Held in Conjunction with the American Association for the Advancement of Science (AAAS) in Chronological Order by Date (1960-1976)
Appendix X	International Academy of Astronautics (IAA) Symposia for Which the AAS Publishes Proceedings in Chronological Order by Date (1967-1992)
Appendix XI	Publications of the American Astronautical Society
Appendix XII	Books/Microfiche Published for the American Astronautical Society (1957-1992)

We consider this volume to be a most valuable reference tool in the field of astronautics and related disciplines in that, along with its earlier companion volumes, it includes almost every available technical paper published by or for the American Astronautical Society in the first thirty-five years of the Space Age.

The Editors

INDEX COVERAGE

This index covers the period 1986 to 1992 except for papers which have not yet been published or those which are covered in the earlier two companion volumes to this volume. This volume and its earlier two companion volumes include all available articles and papers that have appeared in the following publications of the American Astronautical Society:

The Journal of the Astronautical Sciences 1954-1992

Astronautical Sciences Review 1959-1962

Advances in the Astronautical Sciences 1957-1992
(Volumes 1-80)

Science and Technology Series 1964-1992
(Volumes 1-81)

AAS History Series 1977-1992
(Volumes 1-13)

AAS Microfiche Series 1968-1986
(Volumes 1-66)

Special Volumes Published for or in Conjunction with the AAS

It is a complete index of all available articles and papers published by or for the American Astronautical Society. Almost all citations correspond to material still available. A subject index is planned as a future companion volume.

GLOSSARY FOR NUMERICAL/CHRONOLOGICAL/AUTHOR INDEX 1954-1978, 1979-1985/86 AND 1986-1992

AAAS	American Association for the Advancement of Science
AAS	American Astronautical Society
AAS His	AAS History Series
Adv	Advances in the Astronautical Sciences
AIAA	American Institute of Aeronautics and Astronautics
ASR	Astronautical Sciences Review
Bonn Proc.	Bonn Proceedings (Utilization of Space Shuttle and Spacelab, 1976)
CSA	Chinese Society of Astronautics
DGLR	Deutsche Gesellschaft für Luft- und Raumfahrt
GSFC	NASA Goddard Space Flight Center
His	AAS History Series
IAA	International Academy of Astronautics
IAF	International Astronautical Federation
ISBN	International Standard Book Number
ISCOPS	International Space Conference of Pacific-basin Societies
JAS	The Journal of the Astronautical Sciences, Astronautics, and The Journal of Astronautics
JBIS	Journal of the British Interplanetary Society
JPL	Jet Propulsion Laboratory
JRS	Japanese Rocket Society
Mic	AAS Microfiche Series
Micro	AAS Microfiche Series
NASA	National Aeronautics and Space Administration
PISSTA	Pacific Basin International Symposium on Advances in Space Science Technology and its Applications
Sp v	Special AAS volume
S&T	AAS Science and Technology Series

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NUMERICAL/CHRONOLOGICAL INDEX (1986-1992)

The following pages provide a Numerical/Chronological Index of AAS Technical papers published from 1986 to 1992. They are organized by the technical meeting at which the papers were presented. Papers are identified by AAS + year + number. Nearly all the papers indexed appear in proceedings volumes, all of which are available either in hard copy or microfiche from the publishers for the American Astronautical Society, Univelt, Inc., P.O. Box 28130, San Diego, California 92198.

The two earlier companion volumes, *Numerical/Chronological/Author Index 1954-1978* and *Numerical/Chronological/Author Index 1979-1985/86*, cover the papers for those earlier time periods.

Meetings which have been assigned AAS numbers, but proceedings have not yet been published are indicated. Also, one earlier conference held in 1985 is included in this volume because the proceedings were not available at the time of publication of the *Numerical/Chronological/Author Index 1979-1985/86* volume.

Meetings co-sponsored by the American Astronautical Society, but where they do not have the publication rights are not listed here, but can be found in Appendix I of this volume in chronological order by date. The appropriate contact, if known, is given in the appendix for those wishing to find more information on these particular meetings.

In addition to AAS papers, a number of papers presented at annual meetings of the International Astronautical Federation/International Academy of Astronautics but published by the AAS are listed with an IAF or IAA prefix for identification purposes. These special citations follow the AAS citations for the year in which the papers were presented.

Each citation includes the paper number, (AAS, IAF, or IAA), the full title and author(s). The heading under which the papers are listed identifies the volume(s) in which they appear and the technical event at which they were presented. Papers which are not available and paper numbers which are not assigned are indicated.

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(AAS Annual Rocky Mountain Guidance and Control Conference, February 1-5, 1986, Keystone, Colorado)

AAS 86-001 to -099 These papers are covered in *Numerical/Chronological/Author Index (Part II) 1979-1985/86, An Index of Publications of the American Astronautical Society*, ed. Horace Jacobs and Robert H. Jacobs published in 1987.

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(24th Goddard Memorial Symposium, March 20-21, 1986, Greenbelt, Maryland)

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(Proceedings of the Third through Sixth History Symposia of The International Academy of Astronautics, Mar del Plata, Argentina, 1969; Constance, Germany, 1970; Brussels, Belgium, 1971; and Vienna, Austria, 1972; R. Cargill Hall, Series and Volume Editor, 1986)

AAS 86-500 to -538 These papers are covered in *Numerical/Chronological/Author Index (Part II) 1979-1985/86, An Index of Publications of the American Astronautical Society*, ed. Horace Jacobs and Robert H. Jacobs published in 1987.

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	(Proceedings of the Twelfth, Thirteenth, and Fourteenth Symposia of The International Academy of Astronautics, Dubrovnik, Yugoslavia, 1978; München, Federal Republic of Germany, 1979; Tokyo, Japan, 1980; R. Cargill Hall, Series Editor, Å. Ingemar Skoog, Volume Editor, 1990)
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SPACE SAFETY AND RESCUE 1991

(Twenty-Fourth International Space Safety and Rescue Symposium, International Astronautical Federation Congress, October 5-11, 1991, Montreal, Canada)

IAA 91- Will be a forthcoming volume in the AAS *Science and Technology Series.*

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AAS 92-001	Instrument Configurations for the Restructured Earth Observing System (EOS), J. Dozier
AAS 92-002	The Earth Observing System (EOS) Satellites and the Earth Observing System Data and Information System (EOSDIS), W. J. Emery
AAS 92-003	HIRIS, The Instrument and its Science, A. F. H. Goetz, C. O. Davis
AAS 92-004	EOS Moderate Resolution Imaging Spectroradiometer: Phase C/D Status and Comments on Calibration and Georeferencing Approaches, V. V. Salomonson, J. L. Baker
AAS 92-005	SOLSTICE II, The Solar Stellar Irradiance Comparison Experiment on EOS, G. J. Rottman, T. N. Woods
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AAS 92-015	Integer Ambiguity Resolution of the GPS Carrier for Spacecraft Attitude Determination, C. E. Cohen, B. W. Parkinson
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* Unless otherwise indicated, all papers appear in Volume 78, **Advances in the Astronautical Sciences**; "v64 Micro" indicates that the paper appears in full in the microfiche supplement to Volume 78, Advances (**AAS Microfiche Series**, Volume 64).

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AAS 92-021 Not Available

AAS 92-022 Trend Recognition and Failure Prediction of the Attitude Determination and Control System of the Space Station Freedom, K. S. Nelson, G. D. Hadden

AAS 92-023 Applications of Charge-Coupled Device Star Trackers for Spacecraft Attitude Determination, H. L. Fisher, T. Strikwerda, R. M. Dicharry, Jr., M. A. Radovich, D. D. Wagner (v64 Micro) (Abstract - v78 Adv)

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AAS 92-113	Automatic Piece Discrimination in Observation Track Processing, P. C. Allen (Part I)

* Unless otherwise indicated, all papers appear in Volume 79, **Advances in the Astronautical Sciences**. "Part I" or "Part II" indicates in which part of the two-part volume the paper appears, and "v65 Micro" indicates that the paper appears in full in the microfiche supplement to Volume 79, **Advances**, (**AAS Microfiche Series**, Volume 65).

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WORLD SPACE PROGRAMS AND FISCAL REALITY, 30th Goddard Memorial Symposium

(This proceedings volume is based on the 30th Goddard Memorial Symposium held April 9-10, 1992, Alexandria, Virginia)

AAS 92-251 to -300 Will be a forthcoming in the AAS *Science and Technology Series* or the *AAS Microfiche Series*.

VOLUME 14 **AAS HISTORY SERIES**, *HISTORY OF ROCKETRY AND ASTRONAUTICS*, (IAA History Symposia, Volume 8)

(Proceedings of the Eighteenth and Nineteenth History Symposia of the International Academy of Astronautics, Lausanne, Switzerland, 1984; Stockholm, Sweden, 1985)

AAS 92-301 to -325 To be published in 1993.

VOLUME 15 **AAS HISTORY SERIES**, *HISTORY OF ROCKETRY AND ASTRONAUTICS*, (IAA History Symposia, Volume 9)

(Proceedings of the Twentieth and Twenty-First History Symposia of the International Academy of Astronautics, Innsbruck, Austria, 1986; Brighton, United Kingdom, 1987)

AAS 92-326 to -399 To be published in 1993.

SPACE STATION FREEDOM - GATEWAY TO THE 21ST CENTURY

(First Annual Space Station Symposium, December 1, 1992, San Francisco, California)

AAS 92-400 to -450 No proceedings are planned.

SPACE OPPORTUNITIES IN A CHANGING WORLD, 39th AAS Annual Meeting

(39th AAS Annual Meeting, December 2-4, 1992, San Francisco, California)

AAS 92-451 to -550 Possibly forthcoming in the *Advances in the Astronautical Sciences* or *AAS Microfiche Series*.

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SPACE SAFETY AND RESCUE 1992

(Twenty-Fifth International Space Safety and Rescue Symposium, World Space Congress, August 28 - September 5, 1992, Washington, D.C., U.S.A.)

IAA 92- Will be a forthcoming volume in the AAS *Science and Technology Series.*

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It should be noted that *The Journal of the Astronautical Sciences* was titled *Astronautics* in 1954-1955, then *The Journal of Astronautics* in 1956-1957, and finally *The Journal of the Astronautical Sciences* from 1958 on.

In every case, the *Journal* volume number and period covered are given in chronological order with a listing or articles, authors, and page numbers.

Most back issues of the *Journal* may be obtained from the publishers for the American Astronautical Society, Univelt, Inc., P.O. Box 28130, San Diego, California 92198.

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Following is an explanatory glossary:

AAS Designation for an American Astronautical Society paper or article, followed by year and number

Adv Advances in the Astronautical Sciences

His AAS History Series

IAA Designation for an International Academy of Astronautics paper or article, followed by year and number

IAF Designation for an International Astronautical Federation paper or article, followed by year and number

JAS Journal of the Astronautical Sciences

Mic AAS Microfiche Series

S&T Science and Technology Series

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APPENDICES

Appendix I

CONFERENCES SPONSORED OR CO-SPONSORED BY THE AMERICAN ASTRONAUTICAL SOCIETY IN CHRONOLOGICAL ORDER BY DATE (1986-1992)

Listed in this appendix are all meetings, symposia and conferences which the AAS has sponsored or co-sponsored since the last Numerical/Chronological/Author Index was published. For more information on the particular volumes listed below see Appendix XII in this volume which lists all volumes by series in numerical order.

1986

Ninth Annual Rocky Mountain Guidance and Control Conference, Feb. 1-5, 1986, Keystone, Colorado.
Proceedings: Volume 61, *Advances in the Astronautical Sciences*; Volume 53, *AAS Microfiche Series.*

The Human Quest in Space, 24th Goddard Memorial Symposium, Mar. 20-21, 1986, Greenbelt, Maryland.
Proceedings: Volume 65, *Science and Technology Series.*

International Symposium on Composite Materials and Structuring, Jun. 10-13, 1986, Beijing, China.
Proceedings: No AAS proceedings published.

The NASA Mars Conference, Jul. 21-23, 1986, Washington, D.C.
Proceedings: Volume 71, *Science and Technology Series.*

Fifth Annual AAS Military Space Symposium, Military in Space: A Look into the Future, Jul. 30-31, 1986.
Proceedings: None published.

AIAA/AAS Astrodynamics Conference, Aug. 18-20, 1986, Williamsburg, Virginia.
Proceedings: Contact AIAA for information.

First International Conference on Tethers in Space, Sept. 17-19, 1986, Arlington, Virginia.
Proceedings: Volume 62, *Advances in the Astronautical Sciences.*

Aerospace Century XXI, 33rd AAS Annual Meeting, Oct. 26-29, 1986, Boulder, Colorado.
Proceedings: Volume 64-I, -II, and -III, *Advances in the Astronautical Sciences*; Volume 54, *AAS Microfiche Series.*

Low-Gravity Sciences, Seminar Series, Spring and Fall, 1986, University of Colorado at Boulder.
Proceedings: Volume 67, *Science and Technology Series*.

1987

Tenth Annual Rocky Mountain Guidance and Control Conference, Jan. 31 - Feb. 4, 1987, Keystone, Colorado.
Proceedings: Volume 63, *Advances in the Astronautical Sciences*.

Visions of Tomorrow: A Focus on National Space Transportation Issues, 25th Goddard Memorial Symposium, Mar. 18-20, 1987, Greenbelt, Maryland.
Proceedings: Volume 69, *Science and Technology Series*.

Pacific Basin International Symposium on Advances in Space Science, Technology and its Applications, Second (PISSTA) AAS/JRS/CSA Symposium, Jun. 7-10, 1987, Beijing, China.
Proceedings: Contact Univelt, Inc. for information.

Working in Orbit and Beyond: The Challenges for Space Medicine, Jun. 20-21, 1987, Washington, D.C.
Proceedings: Volume 72, *Science and Technology Series*.

The Case for Mars III: Strategies for Exploration, July 18-22, 1987, Boulder, Colorado.
Proceedings: Volumes 74 and 75, *Science and Technology Series*.

AAS/AIAA Astrodynamics Conference, Aug. 10-13, 1987, Kalispell, Montana.
Proceedings: Volume 65-I and -II, *Advances in the Astronautical Sciences*; Volume 55, *AAS Microfiche Series*.

Sixth Annual AAS Military Space Symposium, May 27-28, 1987, Washington, D.C.
Proceedings: None published.

Second International Conference on Tethers in Space, Oct. 5-8, 1987, Venice, Italy.
Proceedings: Contact AIDAA (Italy) for information.

Space - A New Community of Opportunity, 34th AAS Annual Meeting, Nov. 3-5, 1987, Houston, Texas.
Proceedings: Volume 67, *Advances in the Astronautical Sciences*.

First Space and the Sea Colloquium, Nov. 24-27, 1987, Marseilles, France.
Proceedings: No AAS proceedings published.

1988

Eleventh Annual Rocky Mountain Guidance and Control Conference, Jan. 30 - Feb. 3, 1988, Keystone, Colorado.
Proceedings: Volume 66, *Advances in the Astronautical Sciences*; Volume 56, *AAS Microfiche Series*.

Technology and the Civil Future in Space, 26th Goddard Memorial Symposium, Mar. 16-18, 1988, Greenbelt, Maryland.
Proceedings: Volume 73, *Science and Technology Series*.

Seventh Annual AAS Military Space Symposium, Jun. 22-23, 1988, Washington, D.C.
Proceedings: None published.

AIAA/AAS Astrodynamics Conference, Aug. 15-17, 1988, Minneapolis, Minnesota.
Proceedings: Contact AIAA for information.

The 21st Century in Space, 35th AAS Annual Meeting, Oct. 24-26, 1988, St. Louis, Missouri.
Proceedings: Volume 70, *Advances in the Astronautical Sciences*; Volume 58, *AAS Microfiche Series.*

1989

Twelfth Annual Rocky Mountain Guidance and Control Conference, Feb. 4-8, 1989, Keystone, Colorado.
Proceedings: Volume 68, *Advances in the Astronautical Sciences.*

Global Environmental Change: The Role of Space in Understanding Earth, 27th Goddard Memorial Symposium, Mar. 8-10, 1989, Washington, D.C.
Proceedings: Volume 76, *Science and Technology Series*; Volume 60, *AAS Microfiche Series.*

NASA-GSFC/AAS International Symposium on Orbital Mechanics and Mission Design, Apr. 24-27, 1989, Greenbelt, Maryland.
Proceedings: Volume 69, *Advances in the Astronautical Sciences*; Volume 57, *AAS Microfiche Series.*

Third International Conference on Tethers in Space, May 17-19, 1989, San Francisco, California.
Proceedings: Contact AIAA for information.

Eighth Annual AAS Military Space Symposium, May 24-25, 1989, Washington, D.C.
Proceedings: None published.

First International Conference on Space Power, June 5-7, 1989, Cleveland, Ohio.
Proceedings: No AAS proceedings published.

AAS/AIAA Astrodynamics Conference, Aug. 7-10, 1989, Stowe, Vermont.
Proceedings: Volume 71-I and -II, *Advances in the Astronautical Sciences*; Volume 59, *AAS Microfiche Series.*

The U.S. Competitive Position in Space, 36th AAS Annual Meeting, Nov 1-3, 1989, Los Angeles, California.
Proceedings: Position paper only, pp137-148, Volume 76, *Science and Technology Series*; history session only, Volume 13, *AAS History Series.*

Space Utilization and Applications in the Pacific, Third (PISSTA) AAS/JRS/CSA Symposium, Nov. 6-8, 1989, Los Angeles, California.
Proceedings: Volume 73, *Advances in the Astronautical Sciences.*

1990

Thirteenth Annual Rocky Mountain Guidance and Control Conference, Feb. 3-7, 1990, Keystone, Colorado.
Proceedings: Volume 72, *Advances in the Astronautical Sciences.*

Leaving the Cradle: Human Exploration of Space in the 21st Century, 28th Goddard Memorial Symposium, Mar. 14-16, 1990, Washington, D.C.
Proceedings: Volume 78, *Science and Technology Series.*

Space '90 - The Second International Conference on Engineering, Construction and Operations in Space, Apr. 23-26, 1990, Albuquerque, New Mexico.
Proceedings: Contact American Society of Civil Engineers for information.

Ninth Annual AAS Military Space Symposium, May 23-24, 1990, Washington, D.C.
Proceedings: None published.

The Case for Mars IV: The International Exploration of Mars, Jun. 4-8, 1990, Boulder, Colorado.
Proceedings: Forthcoming volume in the AAS *Science and Technology Series*.

International Conference on Dynamics, Vibration, and Control, Jul. 3-6, 1990, Beijing, China.
Proceedings: Contact Univelt, Inc. for information.

AIAA/AAS Astrodynamics Conference, Aug. 20-22, 1990, Portland, Oregon.
Proceedings: Contact AIAA for information.

Second Space and the Sea Colloquium, Sept. 26-28, 1990, Paris, France.
Proceedings: No AAS proceedings published.

Towards the International Space Station and Columbus, Oct. 1-3, 1990, Friedrichshafen, Germany.
Proceedings: Contact DGLR (Germany) for information.

Space Business Opportunities for the Next Decade, 37th AAS Annual Meeting, Nov. 5-7, 1990, Los Angeles, California.
Proceedings: Volume 80, *Advances in the Astronautical Sciences*; Volume 61, *AAS Microfiche Series*.

First Joint U.S./Japan Conference on Adaptive Structures, Nov. 13-15, 1990, Maui, Hawaii.
Proceedings: Contact Ben Wada at JPL for information.

1991

Fourteenth Annual Rocky Mountain Guidance and Control Conference, Feb. 2-6, 1991, Keystone, Colorado.
Proceedings: Volume 74, *Advances in the Astronautical Sciences*.

AAS/AIAA Spaceflight Mechanics Meeting, Feb. 11-13, 1991, Houston, Texas.
Proceedings: Volume 75-I and -II, *Advances in the Astronautical Sciences*; Volume 62, *AAS Microfiche Series*.

Humans and Machines in Space: The Vision, The Challenge, The Payoff, 29th Goddard Memorial Symposium, Mar. 13-15, 1991, Washington, D.C.
Proceedings: Volume 81, *Science and Technology Series*.

Tenth Annual AAS Military Space Symposium, May 22-23, 1991, Washington, D.C.
Proceedings: None published.

Space: A Call for Action, Tenth Annual International Space Development Conference of the National Space Society, May 22-27, 1991, San Antonio, Texas.
Proceedings: Contact Univelt, Inc. for information.

AAS/AIAA Astrodynamics Conference, Aug. 19-22, 1991, Durango, Colorado.
Proceedings: Volume 76-I, -II, and -III, *Advances in the Astronautical Sciences*; Volume 63, *AAS Microfiche Series*.

Second International Symposium, SPS '91 Power from Space, Aug. 27-30, 1991, Paris, France.
Proceedings: No AAS proceedings published.

Second Joint Japan/U.S. Conference on Adaptive Structures, Nov. 11-13, 1991, Nagoya, Japan.
Proceedings: Contact Ben Wada at JPL for information.

International Space Year (ISY) in the Pacific Basin, Fourth ISCOPS (formerly PISSTA) AAS/JRS/CSA Symposium, Nov. 17-20, 1991, Kyoto, Japan.
Proceedings: Volume 77, *Advances in the Astronautical Sciences.*

Space Business Opportunities-II: Space Systems and Technology Initiatives, 38th AAS Annual Meeting, Dec. 3-5, 1991, Los Angeles, California.
Proceedings: Volume 80, *Advances in the Astronautical Sciences*; Volume 66, *AAS Microfiche Series.*

1992

Fifteenth Annual Rocky Mountain Guidance and Control Conference, Feb. 2-6, 1992, Keystone, Colorado.
Proceedings: Volume 78, *Advances in the Astronautical Sciences*; Volume 64, *AAS Microfiche Series.*

AAS/AIAA Spaceflight Mechanics Meeting, Feb. 24-26, 1992, Colorado Springs, Colorado.
Proceedings: Volume 79-I and -II, *Advances in the Astronautical Sciences*; Volume 65, *AAS Microfiche Series.*

Eighth National Space Symposium of the U.S. Space Foundation, Mar. 31 - Apr. 3, 1992, Colorado Springs, Colorado.
Proceedings: Contact Univelt, Inc. for information.

World Space Programs and Fiscal Reality, 30th Goddard Memorial Symposium, Apr. 8-10, 1992, Alexandria, Virginia.
Proceedings: Forthcoming volume in the *Science and Technology Series.*

AAS Space Station Technical Committee (SSTC) Symposium, May 22, 1992, Houston, Texas.
Proceedings: No AAS proceedings published.

Treasures of Discovery, Eleventh Annual International Space Development Conference of the National Space Society, May 22-25, 1992, Washington, D.C.
Proceedings: None published.

Space '92 - The Third International Conference on Engineering, Construction and Operations in Space, May 30 - Jun. 4, 1992, Denver, Colorado.
Proceedings: Contact American Society of Civil Engineers for information.

Eleventh Annual AAS Military Space Symposium, Jun. 10-11, 1992, Washington, D.C.
Proceedings: None published.

AIAA/AAS Astrodynamics Conference, Aug. 10-12, 1992, Hilton Head, South Carolina.
Proceedings: Contact AIAA for information.

Defense Against Ballistic Missiles: The Emerging Consensus for SDI, AAS/SDIO Policy Conference, Sept. 23-25, 1992, Washington, D.C.
Proceedings: No AAS proceedings published.

Third Joint U.S./Japan Conference on Adaptive Structures, Nov. 9-10, 1992, San Diego, California.
Proceedings: Contact Ben Wada at JPL for information.

Space Station Freedom - Gateway to the 21st Century, First Annual Space Station Symposium, Dec. 1, 1992, San Francisco, California.
Proceedings: Contact Univelt, Inc. for information.

Space Opportunities in a Changing World, 39th AAS Annual Meeting, Dec. 2-4, 1992, San Francisco, California.

Proceedings: Contact Univelt, Inc. for information.

Appendix II

AAS ANNUAL MEETINGS IN CHRONOLOGICAL ORDER BY DATE (1954-1992)

Since 1954 the AAS has held an annual national conference. Each is listed in this appendix. For more information on the particular volumes listed below see Appendix XII in this volume which lists all volumes by series in numerical order.

1st AAS Annual Meeting, December 3, 1954, New York City, New York
Proceedings: One paper published in Volume 2-1, *Astronautics*[*].

2nd AAS Annual Meeting, December 1, 1955, New York City, New York
Proceedings: Nine papers, mostly published in *Astronautics*.

3rd AAS Annual Meeting, December 6-7, 1956, New York City, New York
Proceedings: Volume 1, *Advances in the Astronautical Sciences.*

4th AAS Annual Meeting, January 29-31, 1958, New York City, New York
Proceedings: Volume 2, *Advances in the Astronautical Sciences.*

5th AAS Annual Meeting, December 27-31, 1958, Washington, D.C.
Proceedings: Volume 4, *Advances in the Astronautical Sciences.*

6th AAS Annual Meeting, January 18-21, 1960, New York City, New York
Proceedings: Volume 6, *Advances in the Astronautical Sciences.*

7th AAS Annual Meeting, January 16-18, 1961, Dallas, Texas
Proceedings: Volume 8, *Advances in the Astronautical Sciences.*

8th AAS Annual Meeting, January 16-18, 1962, Washington, D.C.
Proceedings: Volume 11, *Advances in the Astronautical Sciences.*

9th AAS Annual Meeting, Interplanetary Missions, January 15-17, Los Angeles, California
Proceedings: Volume 13, *Advances in the Astronautical Sciences.*

10th AAS Annual Meeting, Lunar Flight Programs, May 4-7, 1964, New York City, New York
Proceedings: Volume 18, *Advances in the Astronautical Sciences.*

11th AAS Annual Meeting, Post Apollo Exploration, May 3-6, 1965, Chicago, Illinois
Proceedings: Volume 20-I and -II, *Advances in the Astronautical Sciences.*

12th AAS Annual Meeting, The Search for Extraterrestrial Life, May 23-25, 1966, Anaheim, California
Proceedings: Volume 22, *Advances in the Astronautical Sciences*; Volume 1, *AAS Microfiche Series.*

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* Now designated **The Journal of the Astronautical Sciences.**

13th AAS Annual Meeting, Commercial Utilization of Space, May 1-3, 1967, Dallas, Texas
Proceedings: Volume 23, *Advances in the Astronautical Sciences*; Volume 3, *AAS Microfiche Series*.

14th AAS Annual Meeting, Exploitation of Space for Experimental Research, May 13-15, 1968, Dedham, Massachusetts
Proceedings: Volume 24, *Advances in the Astronautical Sciences*

15th AAS Annual Meeting, Planning Challenges of the 70s in Space and in the Public Domain, June 17-20, 1969, Denver, Colorado
Proceedings: Volume 26, *Advances in the Astronautical Sciences*; Volume 22, AAS *Science and Technology Series*; Volumes 13-19, *AAS Microfiche Series*.

16th AAS Annual Meeting, Space Stations and Manned Planetary Exploration, June 8-10, 1970, Anaheim, California
Proceedings: Volumes 27 and 28, *Advances in the Astronautical Sciences*.

17th AAS Annual Meeting, The Outer Solar System, June 28-30, 1971, Seattle, Washington
Proceedings: Volume 29-I and -II, *Advances in the Astronautical Sciences*.

18th AAS Annual Meeting, Transfer of Space Technology to Community and Industrial Activities, March 13-14, 1972, Washington, D.C.
Proceedings: Volume 29, AAS *Science and Technology Series*.

19th AAS Annual Meeting, International Congress of Space Benefits, June 19-21, 1973, Dallas, Texas
Proceedings: Volume 30, *Advances in the Astronautical Sciences*.

20th AAS Annual Meeting, The Skylab Results, August 20-22, 1974, Los Angeles, California
Proceedings: Volume 31-I and -II, *Advances in the Astronautical Sciences*; Volume 22, *AAS Microfiche Series*.

21st AAS Annual Meeting, Space Shuttle Missions of the 80s, August 26-28, 1975, Denver, Colorado
Proceedings: Volume 32-I and -II, *Advances in the Astronautical Sciences*; Volume 25, *AAS Microfiche Series*.

22nd AAS Annual Meeting, The Bicentennial Space Symposium - New Themes for Space: Mankind's Future Needs and Aspirations, October 6-8, 1976, Washington, D.C.
Proceedings: Volume 35, *Advances in the Astronautical Sciences*.

23rd AAS Annual Meeting, The Industrialization of Space, October 18-20, 1977, San Francisco, California
Proceedings: Volume 36-I and -II, *Advances in the Astronautical Sciences*; Volume 28, *AAS Microfiche Series*.

24th AAS Annual Meeting, Space Shuttle and Spacelab Utilization, What Are the Near-Term and Long-Term Benefits for Mankind?, March 8-10, 1978, Washington, D.C.
Proceedings: Volume 37-I and -II, *Advances in the Astronautical Sciences*.

25th AAS Annual Meeting, The Future United States Space Program, October 30 - November 2, 1978, Houston, Texas
Proceedings: Volume 38-I and -II, *Advances in the Astronautical Sciences*.

26th AAS Annual Meeting, Space Shuttle: Dawn of an Era, October 29 - November 1, 1979, Los Angeles, California
Proceedings: Volume 41-I and -II, *Advances in the Astronautical Sciences*; Volume 33, *AAS Microfiche Series.*

27th AAS Annual Meeting, Space - Enhancing Technological Leadership, October 20-23, 1980, Boston, Massachusetts
Proceedings: Volume 44, *Advances in the Astronautical Sciences*; Volume 35, *AAS Microfiche Series.*

28th AAS Annual Meeting, Leadership in Space - For Benefits on Earth, October 26-29, 1981, San Diego, California
Proceedings: Volume 47, *Advances in the Astronautical Sciences*

29th AAS Annual Meeting, Developing the Space Frontier, October 25-27, 1983
Proceedings: Volume , *Advances in the Astronautical Sciences*

30th AAS Annual Meeting, Space Operations for the 80s and 90s, October 3-5, 1983, Colorado Springs, Colorado
Proceedings: Only 7 papers; Volume 47, *AAS Microfiche Series.*

31st AAS Annual Meeting, Space Propulsion for the 1990s, October 22-24, 1984, Palo Alto, California
Proceedings: pp355-422, Volume 61, AAS *Science and Technology Series.*

32nd AAS Annual Meeting, Space Station Beyond IOC, November 6-7, 1985, Los Angeles, California
Proceedings: Volume 59, *Advances in the Astronautical Sciences*

33rd AAS Annual Meeting, Aerospace Century XXI, October 26-29, 1986, Boulder, Colorado
Proceedings: Volume 64-I, -II and -III, *Advances in the Astronautical Sciences*; Volume 54, *AAS Microfiche Series.*

34th AAS Annual Meeting, Space - A New Community of Opportunity, November 3-5, 1987, Houston, Texas
Proceedings: Volume 67, *Advances in the Astronautical Sciences.*

35th AAS Annual Meeting, The 21st Century in Space, October 24-26, 1988, St. Louis, Missouri
Proceedings: Volume 70, *Advances in the Astronautical Sciences*; Volume 58, *AAS Microfiche Series.*

36th AAS Annual Meeting, The U.S. Competitive Position in Space, November 1-3, 1989, Los Angeles, California
Proceedings: Position paper only, pp137-148, Volume 76, *Science and Technology Series*; history session only, Volume 13, *AAS History Series.*

37th AAS Annual Meeting, Space Business Opportunities for the Next Decade, November 5-7, 1990, Los Angeles, California
Proceedings: Volume 80, *Advances in the Astronautical Sciences*; Volume 61, *AAS Microfiche Series.*

38th AAS Annual Meeting, Space Business Opportunities-II: Space Systems and Technology Initiatives, December 3-5, 1991, Los Angeles, California
Proceedings: Volume 80, *Advances in the Astronautical Sciences*; Volume 66, *AAS Microfiche Series.*

39th AAS Annual Meeting, Space Opportunities in a Changing World, December 2-4, 1992, San Francisco, California

Proceedings: Contact Univelt, Inc. for information.

APPENDIX III

AAS GODDARD MEMORIAL SYMPOSIA IN CHRONOLOGICAL ORDER BY DATE (1961-1992)

Since 1961 the AAS has held an annual Goddard Memorial Symposium in the Washington, D.C. area. Each is listed in this appendix. For more information on the particular volumes listed below see Appendix XII in this volume which lists all volumes by series in numerical order.

1st AAS Goddard Memorial Symposium, Interactions of Space Vehicles with an Ionized Atmosphere, March 17, 1961, Washington, D.C.
Proceedings: *International Series of Monographs in Aeronautics and Astronautics, Division IX Symposia*, Vol. 18, Pergamon Press, 1965.

2nd AAS Goddard Memorial Symposium, Torques and Attitude Sensing in Satellites, March 16-17, 1962, Washington, D.C.
Proceedings: *Mathematics and Mechanics,* Volume 7, Academic Press, New York, 1964.

3rd AAS Goddard Memorial Symposium, Scientific Experiments for Manned Orbital Flight, March 18-19, 1965, Washington, D.C.
Proceedings: Volume 4, AAS *Science and Technology Series*

4th AAS Goddard Memorial Symposium, Space Age in Fiscal Year 2001, March 15-16, 1966, Washington, D.C.
Proceedings: Volume 10, AAS *Science and Technology Series.*

5th AAS Goddard Memorial Symposium, Voyage to the Planets, March 14-15, 1967, Washington, D.C.
Proceedings: Volume 16, AAS *Science and Technology Series.*

6th AAS Goddard Memorial Symposium, Role of the Space Program in the Development of Modern Society, (Technology and Social Progress - Synergism or Conflict?), March 12-13, 1968, Washington, D.C.
Proceedings: Volume 18, AAS *Science and Technology Series.*

7th AAS Goddard Memorial Symposium, Reducing the Cost of Space Transportation, March 4-5, 1969, Washington, D.C.
Proceedings: Volume 21, AAS *Science and Technology Series.*

8th AAS Goddard Memorial Symposium, Aerospace Systems Development: Implications for the Law, 1970
Proceedings: None published.

9th AAS Goddard Memorial Symposium, International Cooperation in Space Operations, March 11, 1971, Washington, D.C.
Proceedings: Volume 27, AAS *Science and Technology Series.*

10th AAS Goddard Memorial Symposium, Transfer of Space Technology to Community and Industry, March 13-14, 1972, Washington, D.C.
Proceedings: Volume 29, AAS *Science and Technology Series.*

11th AAS Goddard Memorial Symposium, The Second Fifteen Years in Space, March 8-9, 1973, Washington, D.C.
Proceedings: Volume 31, AAS *Science and Technology Series.*

12th AAS Goddard Memorial Symposium, Progress Report on Skylab and Pioneer Programs (Skylab and Pioneer Report), March 8, 1974, Washington, D.C.
Proceedings: Volume 36, AAS *Science and Technology Series.*

13th AAS Goddard Memorial Symposium, Future Space Activities, April 11, 1975, Washington, D.C.
Proceedings: Volume 40, AAS *Science and Technology Series.*

14th AAS Goddard Memorial Symposium, Satellite Communications in the Next Decade, March 12, 1976, Washington, D.C.
Proceedings: Volume 44, AAS *Science and Technology Series.*

15th AAS Goddard Memorial Symposium, Export of Aerospace Technology, March 31 - April 1,1977, Washington, D.C.
Proceedings: Volume 46, AAS *Science and Technology Series.*

16th AAS Goddard Memorial Symposium, Space Shuttle and Spacelab Utilization, March 8-10, 1978, Washington, D.C.
Proceedings: Volume 37, *Advances in the Astronautical Sciences.*

17th AAS Goddard Memorial Symposium, Making Space Work, March 28-30, 1979, Washington, D.C.
Proceedings: Volume 49, AAS *Science and Technology Series*;
Volumes 2 and 3, *AAS History Series.*

18th AAS Goddard Memorial Symposium, Commercial Operations in Space 1980-2000, March 27-28, 1980, Washington, D.C.
Proceedings: Volume 51, AAS *Science and Technology Series*;
Volume 3, *AAS History Series.*

19th AAS Goddard Memorial Symposium, International Space Technical Applications, March 26-27, 1981, Washington, D.C.
Proceedings: Volume 52, AAS *Science and Technology Series*;
Volume 5, *AAS History Series.*

20th AAS Goddard Memorial Symposium, Spacelab, Space Platforms and the Future, March 17-19, 1982, Greenbelt, Maryland
Proceedings: Volume 49, *Advances in the Astronautical Sciences.*

21st AAS Goddard Memorial Symposium, Space Applications at the Crossroads, March 24-25, 1983, Greenbelt, Maryland
Proceedings: Volume 55, AAS *Science and Technology Series.*

22nd AAS Goddard Memorial Symposium, Permanent Presence - Making It Work, March 15-16, 1984, Greenbelt, Maryland
Proceedings: Volume 60, AAS *Science and Technology Series.*

23rd AAS Goddard Memorial Symposium, Europe/United States Space Activities, March 27-29, 1985, Greenbelt, Maryland
Proceedings: Volume 61, AAS *Science and Technology Series.*

24th AAS Goddard Memorial Symposium, The Human Quest in Space, March 20-21, 1986, Greenbelt, Maryland
Proceedings: Volume 65, AAS *Science and Technology Series.*

25th AAS Goddard Memorial Symposium, Visions of Tomorrow: A Focus on National Space Transportation Issues, March 18-20, 1987, Greenbelt, Maryland
Proceedings: Volume 69, AAS *Science and Technology.*

26th AAS Goddard Memorial Symposium, Technology and the Civil Future in Space, March 16-18, 1988, Greenbelt, Maryland
Proceedings: Volume 73, AAS *Science and Technology Series.*

27th AAS Goddard Memorial Symposium, Global Environmental Change: The Role of Space in Understanding Earth, March 8-10, 1989, Washington, D.C.
Proceedings: Volume 76, AAS *Science and Technology Series.*

28th AAS Goddard Memorial Symposium, Leaving the Cradle: Human Exploration of Space in the 21st Century, March 14-16, 1990, Washington, D.C.
Proceedings: Volume 78, AAS *Science and Technology Series.*

29th AAS Goddard Memorial Symposium, Humans and Machines in Space: The Vision, The Challenge, The Payoff, March 14-15, 1991, Washington, D.C.
Proceedings: Volume 81, AAS *Science and Technology Series.*

30th AAS Goddard Memorial Symposium, World Space Programs and Fiscal Reality, April 9-10, 1992, Alexandria, Virginia
Proceedings: Contact Univelt, Inc. for information.

APPENDIX IV

AAS/AIAA SPONSORED AND OTHER CONFERENCES ON ASTRODYNAMICS AND SPACE FLIGHT MECHANICS/DYNAMICS IN CHRONOLOGICAL ORDER BY DATE (1965-1992)

In 1965 the AAS began sponsoring/co-sponsoring conferences specifically dealing with space flight mechanics/astrodynamics and in 1968 the first joint AAS/AIAA Astrodynamics Specialist Conference was held. Beginning in 1970 it was decided that these conferences would be held every year with the AAS being the host society in odd years and the AIAA being the host society in even years. All of these conferences are listed in this appendix. For more information on the particular volumes listed below see Appendix XII in this volume which lists all volumes by series in numerical order.

1965 AAS/AAAS Symposium, Recent Developments in Space Flight Mechanics, December 29, 1965, Berkeley, California
Proceedings: Volume 9, AAS *Science and Technology Series.*

1966 AAS Space Flight Mechanics Specialist Conference, July 6-8, 1966, Denver, Colorado
Proceedings: Volume 11, AAS *Science and Technology Series*; Volume 2, *AAS Microfiche Series.*

1968 AAS/AIAA Astrodynamics Specialist Conference, September 3-5, 1968, Grand Teton National Park, Wyoming
Proceedings: Volume 7, *AAS Microfiche Series.*

1970 AIAA/AAS Astrodynamics Specialist Conference, August 20-21, 1970, Santa Barbara, California
Proceedings: Contact AIAA for information.*

1971 AAS/AIAA Astrodynamics Specialist Conference, August 17-19, 1971, Fort Lauderdale, Florida
Proceedings: Volume 20, *AAS Microfiche Series.*

1972 AIAA/AAS Astrodynamics Specialist Conference, September 11-12, 1972, Palo Alto, California
Proceedings: Contact AIAA for information.

1973 AAS/AIAA Astrodynamics Specialist Conference, July 16-18, 1973, Vail, Colorado
Proceedings: Volume 21, *AAS Microfiche Series.*

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* The AIAA/AAS Astrodynamics Specialist Conferences began in 1968. For those beginning in 1970 held during even years the AIAA has publications rights. Please contact them regarding information on conferences not listed here and all even year conferences.

1974 AIAA Mechanics and Control of Flight Conference, August 5-9, 1974, Anaheim, California

Proceedings: Contact AIAA for information.

1975 AAS/AIAA Astrodynamics Specialist Conference, July 28-30, 1975, Nassau, Bahamas

Proceedings: Volume 33, *Advances in the Astronautical Sciences*; Volume 26, *AAS Microfiche Series.*

1976 AIAA/AAS Space Flight Mechanics Specialist Conference, August 18-20, 1976, San Diego, California

Proceedings: Contact AIAA for information.

1977 AAS/AIAA Astrodynamics Specialist Conference, September 7-9, 1977, Jackson, Wyoming

Proceedings: Volume 27, *AAS Microfiche Series.*

1978 AIAA/AAS Astrodynamics Specialist Conference, August 7-9, 1978, Palo Alto, California

Proceedings: Contact AIAA for information.

1979 AAS/AIAA Astrodynamics Specialist Conference, June 25-27, 1979, Provincetown, Massachusetts

Proceedings: Volume 40, *Advances in the Astronautical Sciences*; Volume 32, *AAS Microfiche Series.*

1980 AIAA/AAS Astrodynamics Specialist Conference, August 11-13, Danvers, Massachusetts

Proceedings: Contact AIAA for information.

1981 AAS/AIAA Astrodynamics Specialist Conference, August 3-5, 1981, North Lake Tahoe, Nevada

Proceedings: Volume 46, *Advances in the Astronautical Sciences*; Volume 37, *AAS Microfiche Series.*

1982 AIAA/AAS Astrodynamics Specialist Conference, August 9-11, 1982, San Diego, California

Proceedings: Contact AIAA for information.

1983 AAS/AIAA Astrodynamics Specialist Conference, August 22-25, 1983, Lake Placid, New York

Proceedings: Volume 54, *Advances in the Astronautical Sciences*; Volume 45, *AAS Microfiche Series.*

1984 AIAA/AAS Astrodynamics Specialist Conference, August 20-22, 1984, Bellevue, Washington

Proceedings: Contact AIAA for information.

1985 AAS/AIAA Astrodynamics Specialist Conference, August 12-15, 1985, Vail, Colorado

Proceedings: Volume 54, *Advances in the Astronautical Sciences*; Volume 51, *AAS Microfiche Series.*

1986 AIAA/AAS Astrodynamics Specialist Conference, August 18-20, 1986, Williamsburg, Virginia

Proceedings: Contact AIAA for information.

1987 AAS/AIAA Astrodynamics Specialist Conference, August 10-13, 1987, Kalispell, Montana

Proceedings: Volume 65, *Advances in the Astronautical Sciences*; Volume 55, *AAS Microfiche Series.*

1988 AIAA/AAS Astrodynamics Specialist Conference, August 15-17, 1988, Minneapolis, Minnesota.

Proceedings: Contact AIAA for information.

1989 AAS/GSFC International Symposium on Orbital Mechanics and Mission Design, April 24-27, 1989, Greenbelt, Maryland

Proceedings: Volume 69, *Advances in the Astronautical Sciences*; Volume 57, *AAS Microfiche Series.*

1989 AAS/AIAA Astrodynamics Specialist Conference, August 7-10, 1989, Stowe, Vermont

Proceedings: Volume 71, *Advances in the Astronautical Sciences*; Volume 59, *AAS Microfiche Series.*

1990 AIAA/AAS Astrodynamics Specialist Conference, August 20-22, 1990, Portland, Oregon.

Proceedings: Contact AIAA for information.

1991 AAS/AIAA Space Flight Mechanics Specialist Conference, February 11-13, 1991, Houston, Texas

Proceedings: Volume 75, *Advances in the Astronautical Sciences*; Volume 62, *AAS Microfiche Series.*

1991 AAS/AIAA Astrodynamics Specialist Conference, August 19-22, 1991, Durango, Colorado

Proceedings: Volume 76, *Advances in the Astronautical Sciences*; Volume 63, *AAS Microfiche Series.*

1992 AAS/AIAA Space Flight Mechanics Specialist Conference, February 24-26, 1992, Colorado Springs, Colorado

Proceedings: Volume 79, *Advances in the Astronautical Sciences*; Volume 65, *AAS Microfiche Series.*

1992 AIAA/AAS Astrodynamics Specialist Conference, August 10-12, 1992, Hilton Head, South Carolina.

Proceedings: Contact AIAA for information.

APPENDIX V

AAS ROCKY MOUNTAIN GUIDANCE AND CONTROL CONFERENCES IN CHRONOLOGICAL ORDER BY DATE (1978-1992)

In 1977 the Rocky Mountain Section of the AAS organized the Annual Rocky Mountain Guidance and Control Conference on a formal basis and in March 1978 the first conference was held in Keystone, Colorado. It has been held there annually ever since. All of these conferences are listed in this appendix. For more information on the particular volumes listed below see Appendix XII in this volume which lists all volumes by series in numerical order.

1st Annual AAS Rocky Mountain Guidance and Control Conference, March 10-13, 1978, Keystone, Colorado
Proceedings: Volume 29, *AAS Microfiche Series.*

2nd Annual AAS Rocky Mountain Guidance and Control Conference, February 24-28, 1979, Keystone, Colorado
Proceedings: Volume 39, *Advances in the Astronautical Sciences*; Volume 31, *AAS Microfiche Series.*

3rd Annual AAS Rocky Mountain Guidance and Control Conference, February 17-21, 1980, Keystone, Colorado
Proceedings: Volume 42, *Advances in the Astronautical Sciences.*

4th Annual AAS Rocky Mountain Guidance and Control Conference, January 31 - February 4, 1981, Keystone, Colorado
Proceedings: Volume 45, *Advances in the Astronautical Sciences*; Volume 36, *AAS Microfiche Series.*

5th Annual AAS Rocky Mountain Guidance and Control Conference, January 30 - February 3, 1982, Keystone, Colorado
Proceedings: Volume 48, *Advances in the Astronautical Sciences*; Volume 38, *AAS Microfiche Series.*

6th Annual AAS Rocky Mountain Guidance and Control Conference, February 5-9, 1983, Keystone, Colorado
Proceedings: Volume 51, *Advances in the Astronautical Sciences*; Volume 44, *AAS Microfiche Series.*

7th Annual AAS Rocky Mountain Guidance and Control Conference, February 4-8, 1984, Keystone, Colorado
Proceedings: Volume 55, *Advances in the Astronautical Sciences;* Volume 48, *AAS Microfiche Series.*

8th Annual AAS Rocky Mountain Guidance and Control Conference, February 2-6, 1985, Keystone, Colorado
Proceedings: Volume 57, *Advances in the Astronautical Sciences*; Volume 50, *AAS Microfiche Series.*

9th Annual AAS Rocky Mountain Guidance and Control Conference, February 1-5, 1986, Keystone, Colorado
Proceedings: Volume 61, *Advances in the Astronautical Sciences*; Volume 53, *AAS Microfiche Series.*

10th Annual AAS Rocky Mountain Guidance and Control Conference, January 31 - February 4, 1987, Keystone, Colorado
Proceedings: Volume 63, *Advances in the Astronautical Sciences.*

11th Annual AAS Rocky Mountain Guidance and Control Conference, January 30 - February 3, 1988, Keystone, Colorado
Proceedings: Volume 66, *Advances in the Astronautical Sciences.*

12th Annual AAS Rocky Mountain Guidance and Control Conference, February 4-8, 1989, Keystone, Colorado
Proceedings: Volume 68, *Advances in the Astronautical Sciences.*

13th Annual AAS Rocky Mountain Guidance and Control Conference, February 3-7, 1990, Keystone, Colorado
Proceedings: Volume 72, *Advances in the Astronautical Sciences.*

14th Annual AAS Rocky Mountain Guidance and Control Conference, February 2-6, 1991, Keystone, Colorado
Proceedings: Volume 74, *Advances in the Astronautical Sciences.*

15th Annual AAS Rocky Mountain Guidance and Control Conference, February 2-6, 1992, Keystone, Colorado
Proceedings: Volume 78, *Advances in the Astronautical Sciences*; Volume 64, *AAS Microfiche Series.*

APPENDIX VI

JOINT MEETINGS SPONSORED OR CO-SPONSORED BY THE AAS IN CONJUNCTION WITH THE JAPANESE ROCKET SOCIETY (JRS) AND THE CHINESE SOCIETY OF ASTRONAUTICS (CSA) IN CHRONOLOGICAL ORDER BY DATE (1985-1991)

The first conference in this series was sponsored by the AAS and JRS and represents more than two and a half years of planning and coordination from both societies. After the success of the first conference the CSA expressed an interest in becoming one of the sponsoring organizations and hosted the second conference in the series. The cooperation in space among Pacific-basin societies is emphasized at these conferences. Each society is to take a turn in rotation in hosting the conferences. The AAS has published all of the proceedings except for those of the second conference. All of these conferences are listed in this appendix. For more information on the particular volumes listed below see Appendix XII in this volume which lists all volumes by series in numerical order.

1st AAS/JRS Symposium, Space Exploitation and Utilization, December 15-19, 1985, Honolulu, Hawaii

Proceedings: Volume 60, *Advances in the Astronautical Sciences*; Volume 52, *AAS Microfiche Series*.

2nd AAS/JRS/CSA Symposium, Pacific Basin International Symposium on Advances in Space Science, Technology and its Applications (PISSTA) June 7-10, 1987, Beijing, China.

Proceedings: Contact Univelt, Inc. for information.

3rd AAS/JRS/CSA Symposium, Space Utilization and Applications in the Pacific (PISSTA) November 6-8, 1989, Los Angeles, California.

Proceedings: Volume 73, *Advances in the Astronautical Sciences*.

4th AAS/JRS/CSA Symposium, International Space Year (ISY) in the Pacific Basin, International Space Conference of Pacific-Basin Societies, (ISCOPS; formerly PISSTA) November 17-20, 1991, Kyoto, Japan.

Proceedings: Volume 77, *Advances in the Astronautical Sciences*.

APPENDIX VII

THE CASE FOR MARS CONFERENCES CO-SPONSORED BY THE AAS IN CHRONOLOGICAL ORDER BY DATE (1981-1990)

The AAS became a co-sponsor of the Case for Mars Conferences so that a written record of these works would be available to researchers the world over in the form of conference proceedings volumes. The first conference was held in 1981. The current plan by the organizers is to hold a conference every three years in Boulder, Colorado, with the fifth conference to be held in 1993. All of these conferences are listed in this appendix. For more information on the particular volumes listed below see Appendix XII in this volume which lists all volumes by series in numerical order.

The Case for Mars I, April 29 - May 2, 1981, Boulder, Colorado
Proceedings: Volume 57, AAS *Science and Technology Series.*

The Case for Mars II, July 10-14, 1984, Boulder, Colorado
Proceedings: Volume 62, AAS *Science and Technology Series.*

The Case for Mars III, Strategies for Exploration, July 18-22, 1987, Boulder, Colorado
Proceedings: Volumes 74 and 75, AAS *Science and Technology Series.*

The Case for Mars IV: The International Exploration of Mars, June 4-8, 1990, Boulder, Colorado.
Proceedings: Forthcoming volume in the AAS *Science and Technology Series.*

APPENDIX VIII

JOINT MEETINGS SPONSORED OR CO-SPONSORED BY THE AAS IN CONJUNCTION WITH THE DEUTSCHE GESELLSCHAFT FÜR LUFT- UND RAUMFAHRT (DGLR) AND OTHER ORGANIZATIONS IN CHRONOLOGICAL ORDER BY DATE (1976-1990)

These symposia originally organized by the DGLR and AAS were to provide a forum to express the latest information dealing with Space Shuttle/Spacelab program, a joint United States/German space program. The conferences were held every second year beginning in 1976, Bonn, Germany. The DGLR and AAS alternated as hosts. Then beginning with the 1985 symposium (6th), emphasis shifted more to Columbus and Space Station, and the meeting dates and places became irregular. All of these conferences are listed in this appendix. For more information on the particular volumes listed below see Appendix XII in this volume which lists all volumes by series in numerical order.

1st Symposium, Utilization of Space Shuttle and Spacelab, June 2-4, 1976, Bonn, West Germany
Proceedings: Contact Univelt, Inc. for information.

2nd Symposium, Space Shuttle and Spacelab Utilization - Near-Term and Long-Term Benefits for Mankind, March 8-10, 1978, Washington, D.C.
Proceedings: Volume 37, *Advances in the Astronautical Sciences.*

3rd Symposium, Shuttle/Spacelab - The New Transportation System and Its Utilization, April 28-30, 1980, Hannover, West Germany
Proceedings: Volume 43, *Advances in the Astronautical Sciences.*

4th Symposium, Spacelab, Space Platforms and the Future, March 17-19, 1982, Greenbelt, Maryland
Proceedings: Volume 49, *Advances in the Astronautical Sciences*; Volume 42, *AAS Microfiche Series.*

5th Symposium, From Spacelab to Space Station, October 3-5, 1984, Hamburg, West Germany
Proceedings: Volume 56, *Advances in the Astronautical Sciences* (now available on microfiche only).

6th Symposium, Towards Columbus and Space Station, October 2-4, 1985, Bonn-Bad Godesberg, West Germany
Proceedings: Contact Univelt, Inc. for information.

7th Symposium, Towards the International Space Station and Columbus, October 1-3, 1990, Friedrichshafen, Germany.
Proceedings: Contact DGLR (Germany) for information.

APPENDIX IX

AAS MEETINGS HELD IN CONJUNCTION WITH THE AMERICAN ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE (AAAS) IN CHRONOLOGICAL ORDER BY DATE (1960-1976)

As a member of the American Association for the Advancement of Science, the American Astronautical Society has, in earlier years (1960-1976), regularly held symposia in conjunction with AAAS annual meetings. The AAS has not taken part in this capacity since 1976. All of these conferences are listed in this appendix. For more information on the particular volumes listed below see Appendix XII in this volume which lists all volumes by series in numerical order.

Lunar Exploration and Spacecraft Systems, December 27, 1960, New York City, New York
Proceedings: AAS Special Volume 2.

Manned Lunar Flight, December 29, 1961, Denver, Colorado
Proceedings: Volume 10, *Advances in the Astronautical Sciences.*

Scientific Satellites - Missions and Designs, December 27, 1962, Philadelphia, Pennsylvania
Proceedings: Volume 12, *Advances in the Astronautical Sciences.*

Bioastronautics - Fundamental and Practical Problems, December 30, 1963, Cleveland, Ohio
Proceedings: Volume 17, *Advances in the Astronautical Sciences.*

Towards Deeper Space Penetration, December 29, 1964, Montreal, Canada
Proceedings: Volume 2, AAS *Science and Technology Series.*

Recent Developments in Space Flight Mechanics, December 29, 1965, Berkeley, California
Proceedings: Volume 9, AAS *Science and Technology Series.*

Physics of the Moon, December 29, 1966, Washington, D.C.
Proceedings: Volume 13, AAS *Science and Technology Series.*

Exobiology - The Search for Extraterrestrial Life, December 30, 1967, New York City, New York
Proceedings: Volume 19, AAS *Science and Technology Series.*

Bioengineering and Cabin Ecology, December 30, 1968, Dallas, Texas
Proceedings: Volume 20, AAS *Science and Technology Series.*

Whither Lunar and Planetary Exploration in the 1970s?, December 26-27, 1969, Boston, Massachusetts
Proceedings: None published.

Lunar Sample Analysis, December, 1970, Chicago, Illinois
Proceedings: None published.

Astronomy from a Space Platform, December 27-28, 1971, Philadelphia, Pennsylvania
Proceedings: Volume 28, AAS *Science and Technology Series.*

Space Shuttle Payloads, December 27-28, 1972, Washington, D.C.
Proceedings: Volume 30, AAS *Science and Technology Series.*

Energy Delta, Supply Versus Demand, February 25-27, 1974, San Francisco, California
Proceedings: Volume 35, AAS *Science and Technology Series.*

Skylab Science Experiments, February 28, 1974, San Francisco, California
Proceedings: Volume 38, AAS *Science and Technology Series.*

Viking Mars Science Experiments, February 19, 1976, Boston, Massachusetts
Proceedings: None published.

APPENDIX X

INTERNATIONAL ACADEMY OF ASTRONAUTICS (IAA) SYMPOSIA FOR WHICH THE AAS PUBLISHES PROCEEDINGS IN CHRONOLOGICAL ORDER BY DATE (1967-1992)

The IAA has held an annual history symposium since 1967 at each congress of the International Astronautical Federation. The proceedings of the first and second symposia were originally published in 1974 by the National Air and Space Museum, Smithsonian Institution Press. The third through sixth history symposia were published by NASA in 1977. Only desultory publication of occasional IAA history papers occurred after that until the AAS History Committee, under the leadership of R. Cargill Hall, began to bring together all of these symposium papers into a single sub-series of the *AAS History Series*. All of these symposia are listed below. It is planned to publish all of them in the *AAS History Series*. For more information on the particular volumes listed below see Appendix XII in this volume which lists all volumes by series in numerical order.

The IAA has held an annual international space safety and rescue symposium since 1968 at each congress of the International Astronautical Federation. In 1974 it was decided that it would be beneficial to have these papers available as collective works. At this time all earlier papers (1968-1973) were collected and published in the *AAS Microfiche Series* and the current papers (1974-1975) were published in the AAS *Science and Technology Series*. After that there was again a lapse of time before Gloria W. Heath pulled together the material for the 1976-1981 symposia, and again the sequence became complete as indicated below. A new volume covering one or two of these symposia is to be published in the AAS *Science and Technology Series* as material becomes available. For more information on the particular volumes listed below see Appendix XII in this volume which lists all volumes by series in numerical order.

18th International Astronautical Federation (IAF) Congress, 1967, Belgrade, Yugoslavia
1st IAA History Symposium.
Proceedings: Volume 6, *AAS History Series*.

19th International Astronautical Federation (IAF) Congress, 1968, New York City, U.S.A.
1st IAA International Space Safety and Rescue Symposium.
Proceedings: Volume 23, *AAS Microfiche Series*
2nd IAA History Symposium.
Proceedings: Volume 6, *AAS History Series*.

20th International Astronautical Federation (IAF) Congress, 1969, Mar del Plata, Argentina

2nd IAA International Space Safety and Rescue Symposium.

Proceedings: Volume 23, *AAS Microfiche Series*

3rd IAA History Symposium.

Proceedings: Volume 7-I & -II, *AAS History Series*.

21st International Astronautical Federation (IAF) Congress, 1970, Constance, West Germany

3rd IAA International Space Safety and Rescue Symposium.

Proceedings: Volume 23, *AAS Microfiche Series*

4th IAA History Symposium.

Proceedings: Volume 7-I & -II, *AAS History Series*.

22nd International Astronautical Federation (IAF) Congress, 1971, Brussels, Belgium

4th IAA International Space Safety and Rescue Symposium.

Proceedings: Volume 24, *AAS Microfiche Series*

5th IAA History Symposium.

Proceedings: Volume 7-I & -II, *AAS History Series*.

23rd International Astronautical Federation (IAF) Congress, 1972, Vienna, Austria

5th IAA International Space Safety and Rescue Symposium.

Proceedings: Volume 24, *AAS Microfiche Series*

6th IAA History Symposium.

Proceedings: Volume 7-I & -II, *AAS History Series*.

24th International Astronautical Federation (IAF) Congress, 1973, Baku, U.S.S.R.

6th IAA International Space Safety and Rescue Symposium.

Proceedings: Volume 24, *AAS Microfiche Series*

7th IAA History Symposium.

Proceedings: Volume 8, *AAS History Series*.

25th International Astronautical Federation (IAF) Congress, 1974, Amsterdam, The Netherlands

7th IAA International Space Safety and Rescue Symposium.

Proceedings: Volume 37, AAS *Science and Technology Series*

8th IAA History Symposium.

Proceedings: Volume 8, *AAS History Series*.

26th International Astronautical Federation (IAF) Congress, 1975, Lisbon, Portugal

8th IAA International Space Safety and Rescue Symposium.

Proceedings: Volume 41, AAS *Science and Technology Series*

9th IAA History Symposium.

Proceedings: Volume 9, *AAS History Series*.

27th International Astronautical Federation (IAF) Congress, 1976, Anaheim, California, U.S.A.

9th IAA International Space Safety and Rescue Symposium.

Proceedings: Volume 40, *AAS Microfiche Series*;
abstracts in Volume 54, AAS *Science and Technology Series*

10th IAA History Symposium.

Proceedings: Volume 9, *AAS History Series*.

28th International Astronautical Federation (IAF) Congress, 1977, Prague, Czechoslovakia

10th IAA International Space Safety and Rescue Symposium.

Proceedings: Volume 40, *AAS Microfiche Series*; Abstracts in Volume 54, AAS *Science and Technology Series*

11th IAA History Symposium.

Proceedings: Volume 9, *AAS History Series*.

29th International Astronautical Federation (IAF) Congress, 1978, Dubrovnik, Yugoslavia

11th IAA International Space Safety and Rescue Symposium.

Proceedings: Volume 40, *AAS Microfiche Series*; abstracts in Volume 54, AAS *Science and Technology Series*

12th IAA History Symposium.

Proceedings: Volume 10, *AAS History Series*.

30th International Astronautical Federation (IAF) Congress, 1979, Munich, West Germany

12th IAA International Space Safety and Rescue Symposium.

Proceedings: Volume 54, AAS *Science and Technology Series* and Volume 39, *AAS Microfiche Series*

13th IAA History Symposium.

Proceedings: Volume 10, *AAS History Series*.

31st International Astronautical Federation (IAF) Congress, 1980, Tokyo, Japan

13th IAA International Space Safety and Rescue Symposium.

Proceedings: Volume 54, AAS *Science and Technology Series* and Volume 41, *AAS Microfiche Series*

14th IAA History Symposium.

Proceedings: Volume 10, *AAS History Series*.

32nd International Astronautical Federation (IAF) Congress, 1981, Rome, Italy

14th IAA International Space Safety and Rescue Symposium.

Proceedings: Volume 54, AAS Science and Technology Series and Volume 41, *AAS Microfiche Series*

15th IAA History Symposium.

Proceedings: Volume 11, *AAS History Series*.

33rd International Astronautical Federation (IAF) Congress, 1982, Paris, France

15th IAA International Space Safety and Rescue Symposium.

Proceedings: Volume 58, AAS *Science and Technology Series*

16th IAA History Symposium.

Proceedings: Volume 11, *AAS History Series*.

34th International Astronautical Federation (IAF) Congress, 1983, Budapest, Hungary

16th IAA International Space Safety and Rescue Symposium.

Proceedings: Volume 58, AAS *Science and Technology Series*

17th IAA History Symposium.

Proceedings: Volume 12, *AAS History Series*.

35th International Astronautical Federation (IAF) Congress, 1984, Lausanne, Switzerland

17th IAA International Space Safety and Rescue Symposium.

Proceedings: Volume 64, AAS *Science and Technology Series*

18th IAA History Symposium.

Proceedings: Forthcoming volume in the *AAS History Series*.

36th International Astronautical Federation (IAF) Congress, 1985, Stockholm, Sweden
18th IAA International Space Safety and Rescue Symposium.
Proceedings: Volume 64, AAS *Science and Technology Series*
19th IAA History Symposium.
Proceedings: Forthcoming volume in the *AAS History Series*.

37th International Astronautical Federation (IAF) Congress, 1986, Innsbruck, Austria
19th IAA International Space Safety and Rescue Symposium.
Proceedings: Volume 70, AAS *Science and Technology Series*
20th IAA History Symposium.
Proceedings: Forthcoming volume in the *AAS History Series*.

38th International Astronautical Federation (IAF) Congress, 1987, Brighton, England
20th IAA International Space Safety and Rescue Symposium.
Proceedings: Volume 70, AAS *Science and Technology Series*
21st IAA History Symposium.
Proceedings: Forthcoming volume in the *AAS History Series*.

39th International Astronautical Federation (IAF) Congress, 1988, Bangalore, India
21st IAA International Space Safety and Rescue Symposium.
Proceedings: Volume 77, AAS *Science and Technology Series*
22nd IAA History Symposium.
Proceedings: Forthcoming volume in the *AAS History Series*.

40th International Astronautical Federation (IAF) Congress, 1989, Málaga, Spain
22nd IAA International Space Safety and Rescue Symposium.
Proceedings: Volume 77, AAS *Science and Technology Series*
23rd IAA History Symposium.
Proceedings: Forthcoming volume in the *AAS History Series*.

41st International Astronautical Federation (IAF) Congress, 1990, Dresden, Germany
23rd IAA International Space Safety and Rescue Symposium.
Proceedings: Volume 79, AAS *Science and Technology Series*
24th IAA History Symposium.
Proceedings: Forthcoming volume in the *AAS History Series*.

42nd International Astronautical Federation (IAF) Congress, 1991, Montreal, Canada
24th IAA International Space Safety and Rescue Symposium.
Proceedings: Forthcoming volume in the AAS *Science and Technology Series*
25th IAA History Symposium.
Proceedings: Forthcoming volume in the *AAS History Series*.

43rd International Astronautical Federation (IAF) Congress, 1992, Washington, D.C.
25th IAA International Space Safety and Rescue Symposium.
Proceedings: Forthcoming volume in the AAS *Science and Technology Series*
26th IAA History Symposium.
Proceedings: Forthcoming volume in the *AAS History Series*.

APPENDIX XI

PUBLICATIONS OF THE AMERICAN ASTRONAUTICAL SOCIETY

Following are the principal publications of the American Astronautical Society:

JOURNAL OF THE ASTRONAUTICAL SCIENCES (1954 -)
Published quarterly and distributed by AAS Business Office, 6352 Rolling Mill Place, Suite #102, Springfield, Virginia 22152. Back issues available from Univelt, Inc., P.O. Box 28130, San Diego, California 92198.

SPACE TIMES (1986 -)
Published bi-monthly and distributed by AAS Business Office, 6352 Rolling Mill Place, Suite #102, Springfield, Virginia 22152.

AAS NEWSLETTER (1962 - 1985)
Incorporated in *Space Times*. Back issues available from AAS Business Office, 6352 Rolling Mill Place, Suite #102, Springfield, Virginia 22152.

ASTRONAUTICAL SCIENCES REVIEW (1959 - 1962)
Incorporated in *Space Times*. Back issues still available from Univelt, Inc., P.O. Box 28130, San Diego, California 92198.

ADVANCES IN THE ASTRONAUTICAL SCIENCES (1957 -)
Proceedings of major AAS technical meetings. Published and distributed for the American Astronautical Society by Univelt, Inc., P.O. Box 28130, San Diego, California 92198.

SCIENCE AND TECHNOLOGY SERIES (1964 -)
Supplement to *Advances in the Astronautical Sciences*. Proceedings and monographs, most of them based on AAS technical meetings. Published and distributed for the American Astronautical Society by Univelt, Inc., P.O. Box 28130, San Diego, California 92198.

AAS HISTORY SERIES (1977 -)
Supplement to *Advances in the Astronautical Sciences*. Selected works in the field of aerospace history under the editorship of R. Cargill Hall. Published and distributed for the American Astronautical Society by Univelt, Inc., P.O. Box 28130, San Diego, California 92198.

AAS MICROFICHE SERIES (1968 -)
Supplement to *Advances in the Astronautical Sciences*. Consists principally of technical papers not included in the hard-copy volume. Published and distributed for the American Astronautical Society by Univelt, Inc., P.O. Box 28130, San Diego, California 92198.

Subscriptions to the *Journal of the Astronautical Sciences* and the *Space Times* should be ordered from the AAS Business Office. Back issues of the *Journal* and all books and microfiche should be ordered from Univelt, Incorporated.

APPENDIX XII

BOOKS/MICROFICHE PUBLISHED FOR THE AMERICAN ASTRONAUTICAL SOCIETY (1957-1992)

This appendix lists all books and microfiche published by the AAS in numerical order by volume number, including (1) title of conference, (2) date of conference, (3) place of conference, (4) date of publication, (5) number of pages or fiche in the publication, (6) editor(s) of the publication, (7) form of publication available (hard cover, soft cover or microfiche), (8) price of publication, and (9) ISBN number of the publication. The following series are covered:

(1) *Advances in the Astronautical Sciences* Series;
(2) AAS *Science and Technology Series*;
(3) *AAS History Series*;
(4) *AAS Microfiche Series.*

A general description of all of the serial publications of the American Astronautical Society is given in Appendix XI.

Please note that a complete list of meetings (1986-1992 only) in chronological order by date appears in Appendix I of this volume for those who wish to find a particular meeting by that method. The earlier meetings (1954-1985) are covered in the two earlier index volumes. Appendix I is cross-referenced so that the reader can locate the particular series and volume number and then refer back to this appendix for more information.

Appendices II through X list all meetings by specialty categories including AAS Annual Meetings (Appendix II), AAS Goddard Memorial Symposia (Appendix III), AAS/AIAA sponsored and other conferences on astrodynamics and space flight mechanics/dynamics (Appendix IV), AAS Rocky Mountain Guidance and Control Conferences (Appendix V), joint meetings sponsored or co-sponsored by the AAS in conjunction with the Japanese Rocket Society (JRS) and the Chinese Society of Astronautics (CSA) (Appendix VI), The Case for Mars Conferences (Appendix VII), joint meetings sponsored or co-sponsored by the AAS in conjunction with the Deutsche Gesellschaft für Luft- und Raumfahrt (DGLR) (Appendix VIII), AAS meetings held in conjunction with the American Association for the Advancement of Science (AAAS) (Appendix IX) and International Academy of Astronautics (IAA) Symposia for which the AAS publishes proceedings (Appendix X). Again, these appendices are cross-referenced so that the reader can locate the particular series and volume number and then refer back to this appendix for more information.

ADVANCES IN THE ASTRONAUTICAL SCIENCES SERIES (1957-1992)

SERIES EDITOR: Horace Jacobs

ISSN 0065-3438

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Proceedings of Major AAS Technical Meetings

Vol. 1 Third Annual AAS Meeting, Dec. 6-7, 1956, New York, NY, 1957, 184p., ed. Norman V. Petersen, Microfiche only, $20 *(ISBN 0-87703-002-2)*

Vol. 2 Fourth Annual AAS Meeting, Jan. 29-31, 1958, New York, NY, 1958, 440p., eds. Norman V. Petersen, Horace Jacobs, Microfiche only, $20 *(ISBN 0-87703-003-0)*

Vol. 3 First Western National AAS Meeting, Aug. 18-19, 1958 530p., eds. Norman V. Petersen, Horace Jacobs, Microfiche only, $20 *(ISBN 0-87703-004-9)*

Vol. 4 Fifth Annual AAS Meeting, Dec. 27-31, 1958, Washington, D.C., 1959, 462p., ed. Horace Jacobs, Microfiche only, $20 *(ISBN 0-87703-005-7)*

Vol. 5 Second Western National AAS Meeting, Aug. 4-5, 1959, Los Angeles, CA, 1960, 364p., ed. Horace Jacobs, Microfiche only, $20 *(ISBN 0-87703-006-3)*

Vol. 6 Sixth Annual AAS Meeting, Jan. 18-21, 1960, New York, NY, 1961, 968p., eds. Horace Jacobs and Eric Burgess, Hard Cover $45 *(ISBN 0-87703-007-3)*

Vol. 7 Third Western National AAS Meeting, Aug. 4-5, 1960, Seattle, WA, 1961, 464p., eds. Horace Jacobs and Eric Burgess, Microfiche only, $20 *(ISBN 0-87703-008-1)*

Vol. 8 Seventh Annual AAS Meeting, Jan. 16-18, 1961, Dallas, TX, 1963, 602p., ed. Horace Jacobs, Microfiche only, $20 *(ISBN 0-87703-009-X)*

Vol. 9 Fourth Western Regional AAS Meeting, Aug. 1-3, 1961, San Francisco, CA, 1963, 910p., ed. Eric Burgess, Hard Cover $45 *(ISBN 0-87703-010-3)*

Vol. 10 Manned Lunar Flight (AAS/AAAS Symposium) Dec. 19, 1961, Denver, CO, 1963, 310p., eds. George W. Morgenthaler and Horace Jacobs, Hard Cover $35 *(ISBN 0-87703-011-1)*

Vol. 11 Eighth Annual AAS Meeting, Jan. 16-18, 1962, Washington, D.C., 1963, 808p., ed. Horace Jacobs, Hard Cover $45 *(ISBN 0-87703-012-X)*

Vol. 12 Scientific Satellites - Mission and Design (AAS/AAAS Symposium), Dec. 27, 1962, Philadelphia, PA, 1963, 262p., ed. Irving E. Jeter, Hard Cover $25 *(ISBN 0-87703-013-8)*

Vol. 13 Interplanetary Missions, 9th Annual AAS Meeting, Jan. 15-17, 1963, Los Angeles, CA, 1963, 690p., ed. Eric Burgess, Hard Cover $45 *(ISBN 0-87703-014-6)*

Vol. 14 Second AAS Symposium on Physical and Biological Phenomena under Zero G Conditions, Jan. 18, 1963, Los Angeles, CA, 1963, 382p., eds. Elliot T. Benedikt and Robert W. Halliburton, Hard Cover $30 *(ISBN 0-87703-015-4)*

Vol. 15 Exploration of Mars Symposium, Jun. 6-7, 1963, Denver, CO, 1963, 634p., ed. George W. Morgenthaler, Hard Cover $45 *(ISBN 0-87703-016-2)*

Vol. 16 Space Rendezvous, Rescue, and Recovery Symposium, Sept. 10-12, 1963, Edwards, CA 1963, 1408p., ed. Norman V. Petersen, Hard Cover, **Part 1**, 1028p., $45 *(ISBN 0-87703-017-0)*; **Part 2**, 380p., $30 *(ISBN 0-87703-018-9)*

Vol. 17 Bioastronautics - Fundamental and Practical Problems (AAS/AAAS Symposium), Dec. 30, 1963, Cleveland, OH, 1964, 128p., ed. William C. Kaufman, Microfiche only, $10 *(ISBN 0-87703-019-7)*

Vol. 18 Lunar Flight Programs, 10th Annual AAS Meeting, May 4-7, 1964, New York, NY, 1964, 630p., ed. Ross Fleisig, Hard Cover $45 *(ISBN 0-87703-020-0)*

Vol. 19 Unmanned Exploration of the Solar System Symposium, Feb. 8-10, 1965, Denver, CO, 1965, 1000p., eds. George W. Morgenthaler, Robert G. Morra, Hard Cover $45 *(ISBN 0-87703-021-9)*

Vol. 20 Post Apollo Exploration, 11th Annual AAS Meeting, May 3-6, 1965, Chicago, IL, 1966, 1220p., ed. Francis Narin, Microfiche only, **Part I**, 572p., $30 *(ISBN 0-87703-022-7)*; **Part 2**, 648p., $35 *(ISBN 0-87703-023-5)*

Vol. 21 Practical Space Applications Symposium, Feb. 21-23, 1966, San Diego, CA, 1967, 508p., ed. Lawrence L. Kavanau, Hard Cover $40 *(ISBN 0-87703-024-3)*

Vol. 22 The Search for Extraterrestrial Life, 12th Annual AAS Meeting, May 23-25, 1966, Anaheim, CA, 1967, 388p., ed. James S. Hanrahan, Microfiche only $30 *(ISBN 0-87703-025-1)*; Microfiche Suppl. (Vol. 1 AAS Microfiche Series) $12 *(ISBN 0-87703-132-0)*

Vol. 23 Commercial Utilization of Space, 13th Annual AAS Meeting, May 1-3, 1967, Dallas, TX, 1968, 512p., eds. J. Ray Gilmer, Alfred M. Mayo, Ross C. Peavey, Hard Cover *(ISBN 0-87703-026-X)*; plus Microfiche Suppl. (Vol. 3 AAS Microfiche Series) $60 *(ISBN 0-87703-216-5)*

Vol. 24 Exploitation of Space for Experimental Research, 14th Annual AAS Meeting, May 13-15, 1968, Dedham, MA, 1968, 363p., ed. Harry Zuckerberg, Hard Cover $30 *(ISBN 0-87703-027-8)*

Vol. 25 Advanced Space Experiments, Sept. 16-18, 1968, Ann Arbor, MI, 1969, 530p., eds. O. Lyle Tiffany and Eugene M. Zaitzeff, Hard Cover $40 *(ISBN 0-87703-028-6)*

Vol. 26 Planning Challenges of the 70's in Space, 15th Annual AAS Meeting, Jun. 17-20, 1969, Denver, CO, 1970, 470p., eds. George W. Morgenthaler and Robert G. Morra, Hard Cover $35 *(ISBN 0-87703-053-7)*; Microfiche Suppl. (Vol. 14 AAS Microfiche Series) $20 *(ISBN 0-87703-130-4)*

Vol. 27/28 Space Stations (**v27**) and Space Shuttles and Interplanetary Missions (**v28**), 16th Annual AAS Meeting, Jun. 8-10, 1970, Anaheim, CA, 1970, **Vol. 27**, eds. Lewis Larmore and Robert L. Gervais, 606p., Hard Cover $45 *(ISBN 0-87703-054-5)*; **Vol. 28**, eds. Lewis Larmore and Robert L. Gervais, 488p., Hard Cover $35 *(ISBN 0-87703-055-3)*

Vol. 29 The Outer Solar System, 17th Annual AAS Meeting, Jun. 28-30, 1971, Seattle, WA, 1971, 1358p., $85; ed. Juris Vagners, Hard Cover, **Part 1**, 618p., $40 *(ISBN 0-87703-059-6)*; **Part 2**, 740p., $45 *(ISBN 0-87703-060-X)*

Vol. 30 International Congress of Space Benefits, 19th Annual AAS Meeting, Jun. 19-21, 1973, Dallas, TX, 1974, 528p., ed. Francis S. Johnson, Hard Cover $40 *(ISBN 0-87703-065-0)*

Vol. 31 The Skylab Results, 20th Annual AAS Meeting, Aug. 20-22, 1974, Los Angeles, CA, 1975, 1174p., eds. William C. Schneider and Thomas E. Hanes, Microfiche only (ISBN 0-87703-072-3); Plus Microfiche Suppl. (Vol. 22 AAS Microfiche Series) $60 *(ISBN 0-87703-043-6)*

Vol. 32 Space Shuttle Missions of the 80's, 21st Annual AAS Meeting, Aug. 26-28, 1975, Denver, CO, 1977, 1364p., eds. William J. Bursnall, George W. Morgenthaler, Gerald E. Simonson, Hard Cover, **Part 1**, 598p., $40 *(ISBN 0-87703-078-2)*; Hard Cover, **Part 2**, 766p., $55 *(ISBN 0-87703-087-1)*; Microfiche Suppl. (Vol. 25 AAS Microfiche Series $65 *(ISBN 0-87703-133-9)*

Vol. 33 AAS/AIAA Astrodynamics Conference, July 28-30, 1975, Nassau, Bahamas, 1976, 390p., eds. William F. Powers, Herbert E. Rauch, Byron D. Tapley, Carmelo E. Velez, Hard Cover $35 *(ISBN 0-87703-079-0)*; Microfiche Suppl. (Vol. 26 AAS Microfiche Series) $40 *(ISBN 0-87703-142-8)*

Vol. 34 Apollo Soyuz Mission Report, 1977, 336p., ed. Chester M. Lee, Hard Cover $35 *(ISBN 0-87703-089-8)*

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